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ABSTRACT

The usefulness of alumni ratings in assessing departmental quality was investigated at the University of Illinois by a survey one year after graduation, in 1977. Groups of 4,573 enrolled students and one year later, 1,228 alumni from 22 departments responded to 11 satisfaction items concerning instructional, curricular, advising, and functional aspects of their major departments. The purpose was to assess: (1) whether the factor structure of alumni ratings of major departments is similar to that of enrolled student ratings; (2) whether alumni report degrees of satisfaction different from those of enrolled students; and (3) what the influences are of job-related variables on alumni attitudes toward their major programs and the university in general. The results suggest that former students continue to assess their major programs in the same way after graduation. It was found, however, that alumni were more satisfied with integration of courses, classroom evaluation procedures, and accessibility of instructor than were enrolled students, but less satisfied with vocational guidance. The alumni survey is thus seen as a valuable source of additional information, and is worth the additional expense to administer. (MSE)

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Alumni Ratings as an Indicator of Departmental Quality

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Abstract

The usefulness of alumni ratings in assessing departmental quality was investigated. Groups of alumni and enrolled students from 22 university departments responded to 11 satisfaction items concerning instructional, curricular, advising, and operational aspects of their major departments. Factor structures obtained for the two groups were virtually identical and included two factors: General Satisfaction with Major and Satisfaction with Mentorship. Comparisons of department means showed differences between alumni and enrolled students on several items, particularly vocational guidance. Alumni ratings were found to be relatively uninfluenced by job-related variables. It was concluded that alumni ratings represent an important source of information to be considered in assessing departmental quality.

Alumni Ratings as an Indicator of Departmental Quality

Alumni ratings have been used as a source of evaluative information in institutions of higher education in several different ways. First, alumni ratings of teaching performance for individual professors have been compared with ratings of currently enrolled students. Retrospective ratings of alumni have been related to current student ratings, with correlations ranging from .40 to .75 (Drucker & Remmers, 1951; Centra, 1974; Overall, Marsh, Hughes, & Unterbrink, Note 1). Although these ratings have a relatively high degree of stability, they assess only one important dimension of departmental quality (i.e., individual teaching).

A second use of alumni ratings represents a much broader approach. Alumni have provided their assessments of the skills needed for success in their current profession. Alumni from eleven independent liberal arts colleges in the midwest reported that cognitive and affective skills such as sensitivity, team membership, supervision of work, and oral communication were important for success but that they had not adequately learned these skills while in college (Rossman, Note 2). In another survey, (Ochsner & Solmon, 1979), most alumni rated their college as useful in increasing general knowledge but only a third rated college as very useful in increasing their leadership ability and helping them choose life goals. Based on these surveys, inferences about institutional quality should take into account discrepancies between alumni current needs and retrospective ratings of what they learned while in college.

A third, more intermediate, use involves alumni assessment of the major

department. In a study of 25 graduate departments in history, chemistry, and psychology (Clark, Hartnett & Baird, Note 3), alumni were asked to provide information about their current professional status, career accomplishments, and their opinions of their college training for use in program improvement. Alumni accomplishments were not found to be related in any clear way to measures of faculty productivity, student ability, quality of learning environment, or department reputation. However, alumni ratings of the ability of the faculty and overall excellence of the program correlated highly (.70 to .80) with ratings of enrolled students.

Of the three uses of alumni ratings, the greatest potential utility seems to lie with program and department reviews. Clark, Hartnett and Baird (Note 3) suggested that recent alumni have a better perspective about the contents, procedures, and requirements of a program than do enrolled students and are more objective than faculty members. In a survey of department heads at 134 institutions, Clark (Note 4) found that nearly 60 percent considered alumni ratings and opinions to be "very important" information in departmental reviews and evaluations for departmental use. However, only 40 percent indicated that evaluative information from alumni was available.

At the University of Illinois, departments are reviewed on a regular basis by a central faculty and administrative council (Smock & Hake, Note 5). A 24-item instrument titled the Program Evaluation Survey (PES) was developed to measure enrolled student perceptions of and satisfaction with instructional, curricular, advising, and operational aspects of their major department. The PES was intended to provide data both for central administrative staff to compare and judge departments and for departmental faculty to assess strengths and weaknesses of their departments.

The University of Illinois also mails an alumni survey to all degree recipients one year after graduation. This instrument includes 11 departmental satisfaction items taken from the PES, as well as a number of items concerned with current employment and attitudes toward major program of study and other aspects of the University of Illinois. However, the data from this survey are not used as part of the departmental review process.

Before endorsing the use of alumni ratings of departments, several issues need to be addressed. First, do alumni rate along the same dimensions as they did as enrolled students? If they do, then comparisons among the ratings for the two groups can be made in a straightforward fashion. However, if they do not, caution should be used in comparing the two sets of evaluations. Second, if they do rate along the same dimensions, then are alumni data worth collecting at all? Alumni data are certainly more costly to collect, and if the data are too redundant with student ratings, then they are not cost-effective. A third issue concerns the influence of one's job situation on the ratings of departmental quality. This influence represents a potential threat to the validity of the ratings and if it is appreciable, then again the ratings must be interpreted with caution.

The purpose of this paper is to present the results of an investigation of alumni ratings of departmental quality. Specifically, three major questions were studied:

(1) Is the factor structure of alumni ratings of major departments similar to that of enrolled student ratings?

(2) Do alumni report degrees of satisfaction with aspects of their major departments which are different from those of enrolled students?

(3) What are the influences of job-related variables on alumni attitudes toward their major program and their university in general?

Method

Instruments.

The 1975 Program Evaluation Survey included 11 items to which students indicated their satisfaction with various aspects of their major department. The satisfaction items used a 5-point bipolar scale with anchor labels of 1 = "high" and 5 = "low."

The University of Illinois Survey of 1976 Degree Recipients included the 11 departmental satisfaction items from the PES. It also included a number of items concerned with current employment as well as 2 items inquiring about attitudes toward major program of study and the University of Illinois in general. These last 2 items used a 4-point bipolar scale with anchor labels 1 = "strongly negative" and 4 = "strongly positive."

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Insert Table 1 about here

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Subjects.

A total of 4,573 enrolled students (sophomore and above) majoring in 1 of 22 academic departments from 6 colleges reviewed in 1975-76 completed the PES in November, 1975. During the spring of 1977, one year after graduation, 1,228 alumni from the same 22 departments completed and returned the alumni survey. Sample sizes and return rates by department for each survey are shown in Table 1.

Results

Factor Structures

Simple common factor analyses with oblique rotations were performed on the 11 departmental satisfaction items for enrolled students and alumni

separately. Table 2 shows that the factor structures for the two groups were virtually identical. Two factors were retained for each group. They were labeled General Satisfaction with Major, composed of seven items (loadings > .30), and Satisfaction with Mentorship, composed of four items. The correlations between the factors for the alumni and enrolled student groups were .65 and .63, respectively.

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Insert Table 2 about here

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Comparisons Between Rating Groups

Twenty-two department means were computed separately for the alumni and enrolled student groups on each of the 11 satisfaction items. Two departments were deleted due to unstable alumni means caused by small ($n < 10$) sample sizes. Table 3 shows the comparisons between the department means for each item. Highly significant correlations ($p < .01$) were found for six items, five of which belonged to the General Satisfaction with Major factor. In general, the correlations were higher for items from this factor than for those from the Satisfaction with Mentorship factor.

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Insert Table 3 about here

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Dependent *t*-tests were performed on the 20 department means and are also shown in Table 3. Four items showed significant ($p < .01$) differences. For three of the items (integration of courses, classroom evaluation procedures, and accessibility of instructors) the alumni group reported greater

satisfaction, while for the fourth item (vocational guidance) the alumni were much less satisfied ($p < .0001$).

Influences of Job on Alumni Attitudes

Multiple regression analyses were performed on the individual alumni data. The two dependent variables were items on the alumni survey concerning current overall attitudes toward one's major program and toward the University of Illinois. Two sets of predictor variables were used; the 11 PES items and 8 job-related variables. A total of 490 "unemployed" alumni were deleted from the regression analyses, since they did not complete the items related to jobs. The majority of these alumni classified as unemployed were enrolled in either graduate or professional school.

Table 4 shows the product-moment correlations between overall attitudes and the two variable sets. The correlations with overall attitude toward major program were consistently higher than those with overall attitude toward the university. Also, the correlations with the PES satisfaction items were generally higher than with the job-related variables.

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Insert Tables 4 and 5 about here

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The multiple regressions of the variable sets on the overall attitudes are shown in Table 5. The results are consistent for both overall attitudes. The job-related variables showed high multiple correlations, due primarily to the item dealing with helpfulness of major in job. However, the multiple correlations for the PES items were substantially higher than with the job-related variables and the increments in the multiple correlations when the

job-related variables were entered after the PES items were negligible.

Discussion

Two factors of departmental satisfaction were found for both alumni and enrolled students: General Satisfaction with Major and Satisfaction with Mentorship. These factor structures were highly consistent with those found by Braskamp, Wise and Hengstler (1979), who used a revised version of the PES which contained a similar set of departmental satisfaction items. The results of Braskamp et al. (1979) and this study suggest that former students continue to evaluate their major program along the same dimensions after graduation. Hence it appears reasonable to make comparisons between departmental ratings of enrolled students and alumni.

This raises a cost-effectiveness concern. Unless substantial differences are found between enrolled student and alumni ratings, the collection of the more expensive alumni ratings may not be necessary in order to evaluate departmental quality. For the majority of the PES satisfaction items, high correlations were found between department means for the two rating groups. This is consistent with the findings of Clark et al. (Note 3).

However, significant differences were found between department means for four items. Alumni were more satisfied with integration of courses, classroom evaluation procedures, and accessibility of instructors than were enrolled students, whereas they were less satisfied with vocational guidance. While the meaning of the first three differences will be left open to interpretation, the meaning of the vocational guidance difference seems clear. Alumni have a more valid perspective on the quality of voca-

tional guidance in a department than do enrolled students. Only when students graduate and enter the working world can they be expected to reasonably evaluate the vocational guidance they have received. While enrolled students represent a unique perspective on assessing departmental quality (Braskamp et al., 1979), alumni ratings are sufficiently nonredundant with enrolled student ratings to suggest that alumni also offer a unique perspective in evaluating certain aspects of departments.

A possible undesirable influence on alumni ratings concerns the employment situation of individual alumni. If these ratings of a department are to be valid they should not be unduly influenced by factors such as job satisfaction or salary which are not directly relevant to the evaluation of departmental quality.

The results of the multiple regression analyses showed that while the job-related variables correlate highly as a set with alumni attitudes toward both major program and the university, the dominant predictor was the variable dealing with helpfulness of major in job. Of the job-related variables, this is the most relevant to departmental quality. A common goal of departments is to provide training for students to perform competently in their jobs. Hence, the substantial correlations between alumni attitudes and helpfulness of major in job should not be surprising. The other job-related variables did not show very high correlations with alumni attitudes.

On the other hand, the PES satisfaction items showed higher correlations with alumni attitude toward major program, and slightly lower

correlations with attitude toward the university. Moreover, the contribution to prediction of the set of job-related variables beyond that of the PES satisfaction items was virtually zero. Thus, the job-related variables accounted for very little of the variance of alumni attitudes that was not accounted for by the PES satisfaction items.

In evaluating departmental quality, it is desirable to include as many relevant sources of data as possible. Just as enrolled student ratings represent a relevant perspective on departmental quality, this study has demonstrated that alumni ratings can also provide a unique source of data in assessing departments.

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Table 1

Sample Sizes and Survey Return Rates for

PES and Alumni Surveys by Major Department

	Instrument			
	PES		Alumni Survey	
Major Department	Sample Size	% Return	Sample Size	% Return
Agronomy	110	68	27	68
Animal Science	257	72	55	67
Food Science	121	73	19	68
Health and Safety Education	124	68	43	73
Leisure Studies	228	81	47	55
Physical Education	450	82	77	68
Economics	350	79	68	56
Educational Psychology	151	66	75	68
Elementary Education	503	64	214	73
Architecture	603	54	169	60
Dance	102	99	6	50
Landscape Architecture	126	72	31	65
Music	537	62	145	57
Theatre	105	36	21	62
Urban Planning	132	81	31	89
Labor & Industrial Relations	44	67	11	61
Ecology, Ethology, & Evolution	65	75	4	100
Linguistics	73	91	10	63
Microbiology	109	72	47	70
Physiology & Biophysics	119	72	29	91
Speech Communications	105	58	34	61
Speech and Hearing Science	159	79	65	72
Combined Departments	4573	69	1228	65

Table 2

Factor Loadings of 11 PES Satisfaction Items for Alumni and Enrolled Students

	Program Evaluation Survey (PES) Factors			
	General Satisfaction with Major		Satisfaction with Mentorship	
Program Evaluation Survey Item	Alumni	Enrolled Students	Alumni	Enrolled Students
Challenge of program	.79	.70		
Integration of courses	.67	.62		
Quality of instruction	.67	.60		
Texts and instructional materials	.65	.51		
Classroom evaluation procedures	.48	.40		
Accessibility of instructors			.55	.49
Academic advising			.80	.74
Vocational guidance			.66	.76
Faculty-student communication			.80	.71
Worth of program	.70	.76		
Overall satisfaction with program	.76	.78		

Note: Only loadings greater than .30 are reported.

Table 3

Comparisons Between Department Means of Enrolled Students and Alumni for 11 PES Satisfaction Items

Program Evaluation Survey (PES) Item	Average Department Mean for Enrolled Students	Average Department Mean for Alumni	Correlation	t
Challenge of program	2.27	2.24	.65**	0.23
Integration of courses	2.67	2.49	.79**	2.88**
Quality of instruction	2.42	2.34	.78**	1.76
Texts and instructional materials	2.53	2.44	.55**	1.68
Classroom evaluation procedures	2.78	2.50	.37	4.47**
Accessibility of instructors	2.20	1.99	.22	3.29**
Academic advising	2.58	2.74	.49*	-1.80
Vocational guidance	2.91	3.27	.39	-5.50**
Faculty-student communication	2.62	2.61	.58**	0.07
Worth of program	1.96	2.07	.38	-1.97
Overall satisfaction with program	2.22	2.23	.81**	-0.18

* - $p < .05$

** - $p < .01$

Note: The ratings range from 1 (high satisfaction) to 5 (low satisfaction). A total of 20 departments were used.

Table 4

Correlations of Overall Alumni Attitudes

with Job-Related Variables and PES Items

Variable Sets	Overall Attitudes Toward major program	Overall Attitudes Toward the University of Illinois
Job-related Variables		
Employment Status	-.01	-.01
Relation between job and major	-.28	-.13
Helpfulness of major in job	.42	.23
Job satisfaction	.21	.13
Underemployed in terms of salary	.13	.09
Underemployed in terms of responsibilities	.15	.11
Underemployed in terms of job as a whole	.16	.09
Salary	.18	.10
PES Satisfaction Items		
Challenge of program	-.45	-.33
Integration of courses	-.50	-.40
Quality of instruction	-.46	-.36
Tests and instructional materials	-.37	-.33
Classroom evaluation procedures	-.38	-.31
Accessibility of instructors	-.30	-.29
Academic advising	-.44	-.37
Vocational guidance	-.40	-.28
Faculty-student communication	-.36	-.28
Worth of program	-.59	-.42
Overall satisfaction with program	-.68	-.49

Note: A total of 490 unemployed alumni were deleted from these analyses, leaving a sample size of 738.

Table 5

Multiple Regressions of Overall Alumni Attitudes Using Job-related Variables and PES Items

Variable Sets	Overall Attitudes Toward major program		Overall Attitudes Toward the University of Illinois	
	R	R^2	R	R^2
I. Job-related variables	.435	.189	.251	.063
II. PES satisfaction items	.700	.490	.527	.278
III. Increment of set I after set II	.021	.000	.008	.000